



THE UNIVERSITY *of* EDINBURGH

## Edinburgh Research Explorer

### A Spanish subcontractor in a UK culture

**Citation for published version:**

Oswald, D, Smith, S & Sherratt, F 2014, A Spanish subcontractor in a UK culture. in *Procs 30th Annual ARCOM Conference*. pp. 259-270, 30th Annual ARCOM Conference, Portsmouth, United Kingdom, 1/09/14.

**Link:**

[Link to publication record in Edinburgh Research Explorer](#)

**Document Version:**

Peer reviewed version

**Published In:**

Procs 30th Annual ARCOM Conference

**General rights**

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

**Take down policy**

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact [openaccess@ed.ac.uk](mailto:openaccess@ed.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.





ASSOCIATION OF RESEARCHERS IN **CONSTRUCTION MANAGEMENT**

THIRTIETH  
ANNUAL  
CONFERENCE  
**2014**  
September 1-3

Portsmouth

Volume 1

# A SPANISH SUBCONTRACTOR IN A UK CULTURE

David Oswald<sup>1</sup>, Simon Smith<sup>1</sup> and Fred Sherratt<sup>2</sup>

<sup>1</sup> University of Edinburgh, King's Buildings, West Mains Road, Edinburgh, EH9 3JN, UK

<sup>2</sup> Anglia Ruskin University, Bishop Hall Lane, Chelmsford, CM1 1SQ, UK

Globalisation of the construction industry has meant that people from different national cultures often work together. This creates many additional challenges for the industry, one of which is forming and maintaining a positive safety culture. This study focuses on a Spanish subcontractor working in the UK on a large construction project (+£500m). Throughout a 9-month period, an ethnographic study was undertaken to explore the safety-related challenges that were created for the principal contractor; the lead researcher was able to spend time on the project as a participant observer to gather data around this phenomenon. Despite some regarding it as suspicious, ethnography has now emerged as another approach for understanding the construction industry. This paper demonstrates that through this qualitative approach, new avenues can be explored to broaden and improve our understanding of the industry. The Spanish subcontractor had a faster but less safe culture than their UK counterparts and found it difficult to change their ways and comply with stricter regulations. During the study period, the Spanish subcontractor was stopped numerous times for safety reasons, and even temporarily removed from site. These failings led to the appointment of a health and safety advisor which did lead to some improvements. The challenges did not only occur when the Spanish subcontractor was not following regulations or revealing a poor safety culture, but also when they appeared to display competence. Under UK legislation, the principle contractor is required to check and monitor the competence of the subcontractor and their systems. However in one scenario the principal contractor did not know anything about the Spanish system the subcontractor were using, so how would it be possible to monitor competence? Findings suggest that whilst the Spanish subcontractor may have been a low-cost option initially, safety risks were increased leading to significant amounts of time, money and resources being required to attempt to control these risks.

Keywords: ethnography, migrant, Spain, UK.

## INTRODUCTION

In most countries, large construction projects employ significant numbers of ethnic minorities (Dainty *et al.*, 2007) as labour and specialist subcontractors are drawn from the global construction market. Hispanic workers in the US have received some attention in literature yet there is very little or no research on Hispanic or Spanish-speaking workers in the UK. The case study project explored here is currently under construction by workers of a large number of nationalities, including the Spanish subcontractor who forms the focus of this research. This paper aims to explore the safety-related challenges of this Spanish subcontractor with a mixed Spanish and Portuguese workforce, operating within a UK culture, whilst also enabling reflection on the use of ethnography as a successful research method in this field.

---

<sup>1</sup> D.Oswald@ed.ac.uk

## THE SAFETY OF MIGRANT WORKERS

A poor safety culture is often highlighted as a factor in the causation of accidents. Creating one positive safety culture among an organisation is a difficult task, especially when the organisation is large, which makes it harder to steer, even with full commitment (Hudson, 2007). This task becomes even more challenging when the organisation has migrant workers from various backgrounds. In the UK, there is no doubt that an influx of migrant workers is creating additional challenges to employers (Tutt *et al.*, 2011).

In a study by the HSE (2013a), migrant workers were at a greater risk in construction than British born workers because of language differences, inexperience or lack of understanding of UK Health and Safety standards and cultural differences. In 2006/07 an influx of migrant workers into the UK was identified as the reason for a 25% increase in fatalities, due to communication issues and poor work practises (Owen, 2007). In the following year almost a fifth (17%) of recorded construction deaths involved migrant workers, despite migrant workers only estimated to comprise of 2.4% of construction workers (Tutt *et al.*, 2011). Research found that two-thirds of migrant workers received no health and safety training, while the other third tended to have a short site induction, but this is often not understood or communicated effectively (McKay *et al.*, 2006). Communication barriers with migrant workers have not only been highlighted as a problem in Australia's culturally diverse construction industry (e.g. Loosemore and Lee, 2002), but Sells (2007) describes it as a 'leading concern' amongst migrant Hispanic trades workers.

The influx in Hispanic workers in the US has enabled their construction industry to meet its workforce demands, but unfortunately this has occurred with costs in health and safety of Hispanic construction workers, as Hispanic workers appear to experience a large number of accidents compared to their employment levels (Goodrum and Dai, 2005). Dong and Platner (2004) found that nearly one-third of Hispanic construction workers spoke only Spanish, and their risk of fatal occupational injury was almost twice that of other construction workers. According to Brunette (2004), Hispanic workers, in general, come to the US with a poor understanding of Health and Safety, little or no experience in building trades and had little or no government enforcement of safety regulations. With English not being their mother language, any understanding of the educational or training exercises will be significantly lower than for the native speakers. Clearly, the influx in Hispanic construction workers to the US has created additional challenges and is receiving attention. Yet, research on Hispanic migrant workers from Spain working in the UK is very limited. This could be because there are less Hispanic workers in the UK than in the US, however, as the industry becomes more global, many workers from various backgrounds will be required to work together, including Spanish and UK employees.

### Workplace Accident Rates in Spain and the UK

The HSE (2013b) released European comparison figures for the estimated incidence rates (per 100,000 workers) of fatal accidents at work in 2010. This included all workplace fatal injuries except road traffic accidents and accidents on board transport. The UK had the third lowest rate (0.71 per 100,000 workers) out of the 23 European countries behind Slovakia and the Netherlands. Spain was the tenth lowest with an incident rate of 1.76 per 100,000 workers. This inconsistency between Spain and the UK may suggest there is a difference within the safety culture of the two nations.

## **RESEARCH APPROACH**

Ethnography is an established qualitative research methodology that often uses participant observation as a main research tool. Since observational research does not intervene with the activities being investigated (Alder and Alder, 2000) ethnography is particularly suitable for studying sensitive issues (safety in construction is often a very sensitive issue) since this type of research can provide rich, detailed descriptions about the unknown or little known (Li, 2008).

This study investigates a Spanish subcontractor in a UK culture that was based at a large construction project (+£500m) for a 9 month period. ‘Moderate’ participant observation was implemented, which DeWalt and DeWalt (1998) suggest can provide a good balance of essential involvement and necessary detachment to remain objective. Therefore, although time was spent actively engaging through observations, conversations with employees and attending meetings; time was also spent detached to recording findings and avoid the risk of getting so close to the subjects that objectivity can be lost. The data collected was recorded, coded and analysed through software program, nVivo, with the highlights of the findings being summarised within this paper.

By employing this research method, the primary aim of this study was to identify the difference in the safety culture between the Spanish and UK workers and the safety-related challenges caused by a Spanish subcontractor working in a UK culture. The following ethnography describes in detail the ‘real life’ safety-related challenges that employing a Spanish subcontractor in a UK culture caused. The passages have been presented as detailed as possible to allow the reader to concur with the interpretations made or to make their own interpretations. The fact that different interpretations are possible is an accepted aspect of this type of research and does not reduce the validity of the study. For ethical reasons, and to protect the subjects within this study, names within the following passages are false.

## **¿DÓNDE ESTÁ EL SOL?**

### **A Spanish Subcontractor in a UK Culture**

In the summer of 2013, a new Spanish subcontractor began working on a large construction project in the UK. This offered an opportunity to explore the safety behaviours of Spanish and Portuguese operatives and management in a UK culture. However, their introduction onto the site did not last long, as they were quickly removed after causing design, operational and safety concerns revolving around incomplete method statements and risk assessments during a trial construction. On their return to work, the lead researcher, investigated through ethnography. The following passage describes highlights of the findings in first person.

### **The First Visit**

James, one of the safety advisors, was going out to do a regular workplace inspection on the Spanish subcontractor’s site, and I had the opportunity to accompany him. On his previous inspection he found that the design of a 21 metre work platform had been incorrectly erected. There were pins and bracing that were missing, misplaced or not clipped on, while four operatives were working at the top. He had to stop the works. The temporary designs of the works were being altered between the approved documents and what was being built on-site. James was hoping to see improvements.

Once they arrived on site, they met with Pedro, one of the management staff of the Spanish subcontractor. While James addressed another issue that had arisen, I had a

chance to introduce myself and chat with Pedro. Pedro explained that he was enjoying the project and was grateful to be there, but admitted he knew his team would need to improve their safety practices if they wished to stay for the long-term. Following my further questions, he continued to say that they had been receiving severe criticism for their safety practises and ‘they were right’ to be criticised but it was very difficult to adjust their safety culture. They were used to their way of working, a way he described as ‘quicker and less safe’. He further explained that they were doing their best to reach the safety expectations but it was not proving easy.

During the inspection and other site visits, I began to observe the Spanish and Portuguese workplace behaviours. It became clear their behaviours were different to that of the UK workers I had seen on the project. The Spanish and Portuguese workers appeared to be more tolerant to taking risks: they would often walk behind moving plant without being acknowledged by the driver, use mobiles while driving and the housekeeping was not the same standard as on other sites on the project. Though UK-based workers were also observed taking unsafe risks around the project, it was not to the same frequency as the Spanish and Portuguese workers. James, the safety advisor, was also of this opinion.

### **Climbing the Tall Piers**

On another visit, I had the opportunity to go up the piers being constructed with representatives from the Spanish subcontractor and the principle contractor including Ben, a safety rep in the section. Ben was moved to work with the Spanish subcontractor in hope that it would help to improve their ways of working. Ben had worked with Portuguese workers before so said he knew what to expect. He thought the Spanish and Portuguese workers on the project were ‘great guys’ but he did admit it wasn’t as enjoyable as working with the UK workers, due to the restrictions with language barriers. There were still many of the Spanish and Portuguese operatives that did not speak English, but Ben seemed to think their English was improving. He said to me that the Spanish subcontractor’s operatives thought it was great that the principal contractor was so concerned about their safety and had never had anything like it before. He expanded to say that it wasn’t the workers that were resistant to the safety demands, but instead the Spanish subcontractor’s management who were ‘more concerned about the bank accounts’. Though the Spanish and Portuguese operatives were happy for improved safety methods he didn’t think their behaviour had changed to become more safety conscious – they were still used to their way of working. Ben cared about their safety and had reported a serious breach by four of the Spanish subcontractor’s employees: a manager and 3 operatives had ignored a physical barrier and a red ‘do not use’ tag on the access stairs to a pier. This occurred directly after the ten minute brief, in which the contents had been created by the principle contractors H&S Manager in an attempt to improve their perceptions. This resulted in a safety re-induction of all of the Spanish subcontractor staff and an official written warning for failing to adhere to the principal contractor’s health and safety standards.

The Spanish subcontractor had placed nets around the working platform on the piers to catch any falling objects. Standing at the top of the pier, Ben and I noticed that these nets had accumulated a lot of debris that had fallen, far more than you would expect for accidental falls. During a weekly meeting with the principal contractor and the Spanish subcontractor, which I was fortunate enough to attend, this issue was brought up. The principal contractor had concluded that the nets must have been used as ‘a bin’ rather than a protective safety measure (the net is only meant to be there to

catch something if it accidentally falls). A design to close the gap to reduce the falls was insisted upon the reluctant Spanish subcontractor in the meeting.

**‘What does this tell us? That concrete pours are more important than safety?’**

**The Weekly Meetings**

As an ethnographer, I found the weekly meetings fascinating. The mood in the meeting room was tense with strong flashes of frustration and anger. For well over an hour the Spanish subcontractor would be ‘hammered’ for their failure to comply in various areas. During my first meeting, I sympathised with the Spanish employees, though it was clear others had lost their patience with them.

The meeting room also revealed the attitudes of the Spanish subcontractor's management. One of the most revealing examples revolved around a simple safety design that had been requested for months. A basic safety design was required since there was a 450mm gap between the toe-board and the handrail, which meant if objects were dropped, they could bounce on the metal walkway and over the toe-board. Hence, the toe-board was not sufficient and the principal contractor suggested using netting. On one occasion a chamfer was actually seen resting on top of a toe-board, meaning it could easily fall over the side - totally defeating the toe-board's purpose. This basic safety design had been requested for months without completion, yet when a temporary design change was needed for a concrete pour to commence, the design was ready within two hours. The Spanish subcontractor's project manager was asked directly in the weekly meeting: ‘What does this tell us? That concrete pours are more important than safety? Why can you not get us this safety design?’. The project manager replied that he could not confirm a date as it was in the hands of an external designer and out-with his control. The principal contractor found this answer hard to believe, especially when it was possible to obtain a temporary design for a concrete pour within two hours. This perhaps suggests that the Spanish subcontractor did not want to spend time and money implementing netting around the working platforms and did not perceive it as an urgent or important issue.

Many of the other safety issues were slow to being closed out including ladders on the access to the piers, which did not comply with the UK regulations. This issue was raised in October and new ladders finally arrived in March the following year. The principal contractor was also demanding the Spanish subcontractor's project manager to plan the works, a legal requirement (CDM, 2007) that was overdue. It appeared the project manager was perhaps struggling to complete this task because he was not trained to the UK standards (his UK site managers training was not for three months). He explained that he didn't know what other subcontractors were doing around them, so for example he didn't know which areas were available for loading/unloading.

On-site it appeared that there was this lack of integration between the neighbouring UK-based subcontractor and Spanish subcontractor. When speaking to Goggsy, a site manager of a UK-based subcontractor working in the site area next to the Spanish subcontractor, he explained that he was always looking for improve their ways of work and was curious to see the Spanish subcontractors systems. His suggestions to them were apparently just ignored and they seemed not interested. Despite being site neighbours it was clear that there were separate teams and safety cultures. According to Loosemore *et al.* (2010), such segregation caused by language and cultural barriers, can pose challenges with not only safety but also waste, quality and productivity.

### **A large construction project or a pub in England?**

I also got a chance to speak with the Cristian, a member of management staff for the Spanish subcontractor. I had met Cristian in the weekly meetings but this was the first time he had the opportunity to speak with him on-site. Cristian had previously worked in construction projects in Spain, but had to move due to the difficult economic situation in Spain. He therefore came to the UK to work in a pub and learn English. After two years the opportunity arose to return to the construction industry, working on this project in the UK. When I asked if there was a big difference in safety between UK and Spanish construction, he explained that: the culture is undoubtedly very different, that higher safety standards were expected in the UK and that the codes were more detailed. He gave the example that in Spain ‘a ladder is just a ladder’ but in the UK there are required sizes and specifications. The closest he had come to UK standards in Spain was when he had worked in high-speed rail. The smaller projects in Spain were less safety conscious. Just like Pedro, he said the work on the jobs he had done in Spain was ‘much quicker than here but less safe’ and that they could do ‘a lift a day’ – a very fast rate. He did go on to say that though the culture is less safe in Spain, it is not a ‘disaster’ and he had not seen any major injuries. Comparing the statistics, a HSE report (2013) found that Spain has approximately 1 extra workplace death per 100,000 workers than the UK.<sup>2</sup>

Cristian had found it very stressful working on the project and even said that at times he enjoyed working in the bar in England more than working on this large construction project. He explained that sometimes he thought it was very frustrating working with the principal contractor, especially as the Spanish subcontractor was reliant on their equipment. Sometimes Cristian would have five men ready to work but the principal contractor would impose an action that they must do before the works could be carried. But this action, a safety requirement or other, sometimes did not require all five men, which meant a greater cost. Cristian seemed to think that the principal contractor did not seem to understand.

### **How do we check competence when we don’t know what they are doing?**

There had been several occasions where the Spanish subcontractors had not reached the safety standards expected and work had to be stopped. However, there were even challenges when the Spanish subcontractor appeared competent. During operations the Spanish subcontractor planned to use a Spanish scaffold system; a system they appeared competent in and had all the required documentation from Spain to communicate that they were qualified and competent. Yet this system was unknown to the principal contractor, so how would it be possible to monitor and check competence in this particular system? (UK legislation – Construction (Design and Management) Regulations 2007 – requires this). It was concluded by the principal contractor that to be able to continue, the Spanish subcontractor would have to use a system that was used and recognised in the UK in order to check competence. Though through further investigation into the system being used, it was actually found to be out of date (it had been superseded since tender) and hence the system had to be changed anyway. Had the system not been superseded and had to be changed because of lack of knowledge in the work system, it would have been very frustrating for the Spanish subcontractor.

### **We need paperwork as well as your concrete**

On another occasion on site, I got another brief opportunity to speak with Pedro. Having heard that poor method statements and risk assessments had an influence in

---

<sup>2</sup> UK is 0.71 and Spain is 1.76 deaths per 100,000 workers. Note this is deaths across all industries.



their initial removal during the trial construction period, I was curious if Pedro could enlighten me on such safety methods used in Spain. Pedro explained that back in Spain they have risk assessments or something similar but they are often not completed properly or even at all. He had found that the paperwork requirements on this project were much greater than to what he was used to.

**‘If you pay me another salary...’**

Behavioural-based safety (BBS) training was introduced across the site. One of the most powerful tools used in BBS sessions are safety videos. Yet with this tool being in English, the impact on little or non-English speaking migrant workers is significantly reduced. Translating the subtitles from English to Spanish would be a very timely procedure, and one English and Spanish speaking employee joked that he would only do it if ‘you pay me another salary’. This reduction in understanding is similar to Brunette’s (2004) findings for Hispanic workers in the US - where non-English speaking workers gained less from training than English speaking.

**Safety Advisor or ‘Policeman’?**

There were fears from the works manager within the section that there would be a major incident, and he had therefore requested as much coverage as possible from the principal contractor’s safety team. The problems and issues had been noted by the principal contractor’s project director, who told the Spanish subcontractor in a meeting that they had to improve. Following fears that the Spanish subcontractor could be removed from their post due to these safety concerns, they employed their own full-time safety advisor. The new safety advisor felt like a ‘policeman’, having to watch the Spanish workers very carefully. However, the safety performance certainly made improvements following his arrival. Even from the weekly meetings this was evident - safety discussions had taken over an hour, but as items got closed out from week to week, the safety aspects could be discussed within 20 minutes.

A key factor in this improvement was the liaison between the Spanish subcontractor’s new safety advisor and their management. The Spanish subcontractor appeared to feel more comfortable taking advice from their own employee, especially when it involved cost. The improvements have been positive, but there are still incidents occurring and a lot of work to do moving forward. Had this improvement not have occurred, it would have put the principal contractor in a very difficult position. If they were to remove the Spanish subcontractor, the dismissal process would have to be flawless, which would require time to gather all the evidence and issue formal written warnings. The principal contractor could also not afford to wait too long to make such a decision, as if an incident occurred and an investigation concluded that the principle contractor were mismanaging the subcontractor - by giving regular verbal warnings with no action, the principle contractor could be liable.

**ETHNOGRAPHIC FINDINGS IN CONTEXT**

The above ethnographic findings should be situated in relation to current understanding of Hispanic workers in an English-speaking country. In this study the Spanish subcontractor were unfamiliar with the safety demands placed upon them. This difference in safety expectations caused great stress, a factor that has been suggested to have a contributory role in accidents (Murphy *et al.*, 1986). The differences in national culture also caused issues with systems of work and paperwork expectations for method statements and risk assessments. In reflection, it is therefore of no great surprise that Brunette (2004) stated that a clear understanding of the

cultural backgrounds of the Hispanic workforce is critical. As well as causing issues and stress with the systematic practices, this study also found that the difference in national culture also brought other negative factors such as: lesser safety training and supervision, inadequate safety knowledge, communication and literacy issues. These negative factors were also identified in a study by CDC (2008) as contributory factors for 200 Hispanic workers deaths in the US. The concerned principal contractor acted on these negative factors by ensuring all safety communication was available in both Spanish and English, having BBS training sessions and insisting on the appointment of a full-time safety advisor. Though these negative factors were concerning, the two greatest concerns were caused by: the Spanish subcontractor's apparent acceptance of unsafe conditions and their desire to work fast.

The Spanish subcontractor's site was subject to a variety of unsafe conditions usually involving poor housekeeping; though more severe conditions were witnessed such as the incorrectly erected 21 metre high working platform. Despite the safety issues caused by such conditions the workers appeared to tolerate these risks. In a study by Roelofs *et al* (2011), Hispanic workers in the US felt that their only option in opposing unsafe conditions was to leave the job, rather than 'speak out' against these conditions, and that the 'need for a job' was often a factor in tolerating the unsafe conditions. At the time of this study, Eurostat (2014) had Spain's unemployment rate at a staggering 25.6%, compared to the UK's 7.1%. Such economic disadvantage has been used to partially explain why there is disparity in injury rates by investigators (eg. Pransky *et al.*, 2002). Though this lack of opposition to unsafe conditions may have been due to the 'need for a job' and economic disadvantage, the reluctance to 'speak out' against hierarchy has been found to being within Hispanic national culture. One of Hofstede's (1997) four original dimensions, Power index (PD) is related to how the hierarchal structure of the organisation is interpreted and in countries with high PD, the management's authority is accepted as a natural consequence of inequality. Spanish speaking countries score highly on PD and despite Spain being in the lower end of this group with 57, this score is still considered high. In such high PD cultures, organisation is hierarchical with decision making decentralised (Mearns and Yule, 2009), which means decisions related to safety are made by superiors and are expected to be obeyed by subordinates (Gyekye and Salminen, 2006). This cultural trait could also partially explain why there was a high turnover of operatives in this study - workers were more likely to leave than discuss their safety concerns or other problems. This high turnover was frustrating for the safety management that were trying to change and improve safety attitudes and behaviours; a frustration that corresponds with literature, which has suggested that stable groups are linked with low accident rates (Gherardi and Nicolini, 2002).

The Spanish subcontractor would work at a much faster rate and were aware that this approach was less safe. The workers appreciated emphasise on safety, but thought the managers were less involved in safety for financial reasons. In Roelofs *et al*'s study a similar conclusion was found; that Hispanic workers in the US were found to being under greater pressure to work fast, often to assure supervisors' bonuses. The workers in Roelof *et al*'s study also took responsibility for not taking safety precautions themselves and 'going along' with it - again a high PD culture trait.

## CONCLUSIONS

In this study, the Spanish subcontractor was initially a low-cost option, but due to cultural differences there were increased risks and safety-related challenges. The Spanish subcontractor's risk assessments and method statements were originally of a

lower standard, and it appeared that their workers were more prone to taking risks, such a walking behind moving vehicles. Language barriers seemed to cause confusion and separations in the safety culture, make work less enjoyable, limit interventions and make it more difficult to improve behaviours through training. These issues resulted in extra expense and the need for additional resources including extra supervision, training available in other languages (or having interpreters) and having posters, signs, toolbox talks, ten minute briefs available in other languages. There were also challenges when the Spanish subcontractor appeared to be displaying competence, as a system they were using was unknown to the principal contractor and hence they could not monitor competence. It is recommended that for future cross cultural collaborations, such challenges are planned and priced for.

There has been very little research into differences in safety culture on construction sites across various nations. This could be due to the narrow research methods used in the industry. Pink *et al.* (2013) describe the strength of the ethnographic approach as being able to make informal (or unofficial) practises, interactions and ways of knowing visible. Despite all the safety-related challenges discussed that were made visible through this ethnographic approach, the accident and incident statistics of the Spanish subcontractor were not noteworthy in comparison to others on the project. Hence had a more traditional quantitative approach been applied these issues could have gone unnoticed. This paper adds weight to the argument that through ethnography, new avenues are possible which can widen the range of findings and understanding in the industry.

Statistical evidence suggests that Spain is a more dangerous place to work than the UK. In this study, the Spanish subcontractor acknowledged that their safety culture within the construction industry is 'less safe' but more productive. This may have resulted in a national cultural clash that could feasibly have led to many of the safety-related challenges outlined. As the industry becomes more globalised, with employees from a variety of backgrounds having to work together, understanding this area will only gather importance.

## REFERENCES

- Alder, P. A., and Alder, P. (2000). Observational techniques. In N. K. Denzin and Y. S. Lincoln (Eds.), *"Handbook of qualitative research"* (pp. 377-392). Thousand Oaks, CA: Sage.
- Brunette M., J. (2004). Construction safety research in the United States: Targeting the Hispanic workforce. *"Safety Research of Hispanic Construction Workers"*, 10, 244-248.
- Centers for Disease Control and Prevention (CDC) (2008): Work-related injury deaths among Hispanics - US, 1992-2006. *MMWR Morb Mortal Wkly Rep* 2008, 57:597-600.
- DeWalt, Kathleen M. and DeWalt, Billie R. (1998). Participant observation. In H. Russell Bernard (Ed.), *"Handbook of methods in cultural anthropology"* (pp.259-300). Walnut Creek: AltaMira Press.
- Dainty, A., Green, S., Bagillhole, B. (eds.) (2007) *"People and Culture in Construction: A Reader"*, Taylor and Francis, Oxon.
- Dong, X and Platner, J., (2004) Occupational Fatalities of Hispanic Construction Workers From 1992 to 2000, *"American Journal of Industrial Medicine"*, 45:45-54.
- Eurostat (2014) News Release (April), European Commission.

- Gherardi, S and Nicolini, D (2002) 'Learning the trade: A culture of safety in practise', *"Organisation"*, **9**: 191-223.
- Gyekye, S. A., and Salminen, S. (2006). The self-defensive attribution hypothesis in the work environment: Co-workers' perspectives. *"Safety science"*, **44**(2), 157-168.
- Goodrum, P. M., and Dai, J. (2005). Differences in occupational injuries, illnesses, and fatalities among Hispanic and non-Hispanic construction workers. *Journal of "Construction Engineering and Management"*, **131**(9): 1021-1028.
- Hofstede, G., Hofstede, G. J., and Minkov, M. (1997). „Cultures and organizations". New York: McGraw-Hill.
- HSE (2013a), Migrant workers, accessed 03/04/14. available at: <http://www.hse.gov.uk/migrantworkers/construction.htm>
- HSE (2013b), European Comparisons, accessed 02/03/14, available at: <http://www.hse.gov.uk/STATISTICS/european/index.htm>
- Hudson, P. (2007). Implementing a safety culture in a major multi-national. *Safety Science*, **45**(6), 697-722.
- Li, J (2008) Ethical Challenges in Participant Observation: A Reflection on Ethnographic Fieldwork, *The Qualitative Report* Volume 13 Number 1 March 2008 100-115. Available at > <http://www.nova.edu/ssss/QR/QR13-1/li.pdf>.
- Loosemore, M and Lee P (2002), Communication problems with ethnic minorities in the construction industry, *"Int J Project Manage"*, **20**: 517–524.
- Loosemore M, Phua F, Dunn K and Ozguc, U (2010) 'Managing cultural diversity in Australia construction sites', *"Construction Management and Economics"*, **28**(2), 177-188.
- McKay, S., Craw, M., Chopra, D. (2006) Migrant workers in England and Wales, An assessment of migrant worker health and safety risks, HSE publication.
- Mearns, K., and Yule, S. (2009). The role of national culture in determining safety performance: Challenges for the global oil and gas industry. *"Safety Science"*, **47**(6), 777-785.
- Murphy, L. R., DuBois, D., and Hurrell, J. J. (1986). Accident reduction through stress management. *"Journal of Business and Psychology"*, **1**(1), 5-18.
- Owen, E (2007) 'Shock rise is site deaths down to language barrier', *New Civil Engineer*, 22 March: 11.
- Pink, S., Tutt, D., Dainty, A. (2013). *"Ethnographic Research in the Construction Industry"*, Routledge Publication.
- Pransky, G., Moshenberg, D., Benjamin, K., Portillo, S., Thackrey, J. L., and Hill-Fotouhi, C. (2002). Occupational risks and injuries in non-agricultural immigrant Latino workers. *"American Journal of industrial medicine"*, **42**(2), 117-123.
- Roelofs C, Sprague-Martinez L, Brunette M and Azaroff, L (2011). A qualitative investigation of Hispanic construction worker perspectives on factors impacting worksite safety and risk.
- Sells, K (2007). Safe In Every Language, *The Builder*, Volume 11, issue 3, page 14-15 <http://bldrs.org/resources/docs/spanish.pdf>
- Tutt, D., Dainty, A., Gibb, A., and Pink, P (2011) 'Migrant construction workers and health and safety communication', (ConstructionSkills Report), King's Lynn: CITB-ConstructionSkills.